



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF PREVENTION, PESTICIDES  
AND TOXIC SUBSTANCES

October 18, 2007

MEMORANDUM

SUBJECT: Likely to Adversely Affect Effect Determinations for Captan Relative to the California Red-Legged Frog and Designated Critical Habitat

FROM: Christine Hartless, Wildlife Biologist  
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TO: Arthur-Jean B. Williams, Associate Director  
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Attached is the assessment of potential direct and indirect effects to the California red-legged frog (CRLF) and potential adverse modification to designated critical habitat from uses of the fungicide, captan. While the Endangered Species Act requires we assess uses of pesticides relative to any potentially affected listed species, this assessment focuses only on the CRLF, including designated critical habitat, addressing provisions of a settlement agreement entered into by the federal government to resolve claims made by plaintiffs against EPA in a court case (CBD v. EPA<sup>1</sup>).

The attached assessment was conducted consistent with the Agency's Overview Document<sup>2</sup>. Effects determinations for this assessment are summarized below:

- The assessment resulted in a determination that the use of the pesticide products containing captan may effect and is likely to adversely affect (LAA) the CRLF. This determination is based on captan's potential to directly and indirectly affect the species.
- Captan is likely to directly affect the CRLF in aquatic and terrestrial habitats due to acute and chronic affects.
- Potential indirect effects include a reduction in prey in aquatic habitats (including fish and other frogs) and terrestrial habitats (including terrestrial invertebrates, small mammals and terrestrial-phase amphibians) based on acute and chronic exposure.
- Risk quotient (RQ) values for both vascular and non-vascular aquatic plants and aquatic invertebrates do not exceed the level of concern (LOC); therefore, indirect effects to the CRLF

<sup>1</sup> Settlement agreement of October 20, 2006: Center for Biological Diversity v. United States Environmental Protection Agency. Civ. No: 02-1580-JSW(JL)).

<sup>2</sup> Overview of the Ecological Risk Assessment: Process in the Office of Pesticide Programs, U.S. Environmental Protection Agency: Endangered and Threatened Species Effects Determinations: January 23, 2004.

through effects on aquatic habitats in a “no effect” (NE) determination.

- RQs were not calculated for terrestrial plants due to lack of appropriate data. Multiple lines of evidence suggest that captan poses minimal risk to terrestrial plants. Based on open literature data identified by the ECOTOX database maintained by EPA/Office of Research and Development (ORD), captan as a seed treatment did not negatively impact germination or growth of the evaluated plant species. Mild phytotoxic effects were observed in highbush blueberries but effects were observed at an application rate much greater than the off-field modeled estimated environmental concentrations. A “may affect, not likely to affect” (NLAA, insignificant) determination was made for effects to terrestrial plants.
- Labeled uses of captan within the action area may modify the designated critical habitat of the CRLF by altering chemical characteristics necessary for normal growth and viability of juvenile and adult CRLFs and their food source.
- Tables 1.1 and 1.2 of the executive summary of the Pesticide Effects Determination document provide a more detailed account of the effects determination.

As required by the Alternative Consultation Agreement EPA entered into with the U.S. Fish and Wildlife Service and National Marine Fisheries Service (Services), I have been trained by the Services to make such determinations. Additionally, this assessment was subjected to internal Agency peer review throughout its development.

Please let me know if you have any questions regarding this assessment and effects determination for captan relative to the CRLF and its designated critical habitat.

cc: Steven Bradbury  
Debbie Edwards

Attachments